ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is an electric power generating station and based on the discharge is considered to be a **minor** facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

| Permittee's Name: | Tucson Electric Power Company | | | |
|-------------------------------|---|--|--|--|
| Permittee's Mailing Address: | P.O. Box 711 Tucson, AZ 85702 | | | |
| Facility Name: | Tucson Electric Power Company North Loop Generating Station | | | |
| Facility Address or Location: | 10600 North Casa Grande Highway, Marana, AZ 85653 | | | |
| County: | Pima | | | |
| Contact Person(s): | Mary Fosdick | | | |
| Phone/e-mail address | 520-745-3225 / MFosdick@tep.com | | | |
| AZPDES Permit Number: | AZ0024821 | | | |
| Inventory Number: | 101064 | | | |

| I. STATUS OF PERMIT(s) | |
|--|------------|
| AZPDES permit applied for: | Renewal |
| Date application received: | 8/07/2018 |
| Date application was determined administratively complete: | 09/06/2018 |
| Previous permit expiration date: | 02/03/2019 |

208 Consistency:

Based on review of the application, there are no changes to the facility that require a new determination of consistency with the Regional Water Quality Management Plan.



| II. GENERAL FACILITY INFORMAT | II. GENERAL FACILITY INFORMATION | | | | | |
|---------------------------------------|--|--|--|--|--|--|
| Type of Facility: | Industrial - Electric Generating Station | | | | | |
| Facility Location Description: | Located approximately ¼ mile southeast of Avra Valley Road and I-10 and approximately ¾ mile east of the Santa Cruz River in Marana, Pima County, Arizona. | | | | | |
| Facility Processes: | The facility consists of 4 natural gas turbines. Each turbine is equipped with an evaporative cooler to lower the temperature of the ambient air provided to the gas turbines. The lower temperature increases the permitted firing temperature of the turbine, thereby maximizing the generating capacity and efficiency of the generating units during hot summer weather. Without cooling mechanism, the hot ambient air could also damage the equipment. In order to control the mineral buildup in the evaporative cooler water and prevent mineral buildup, scaling and corrosion, some of the water is released as blowdown. Turbine Unit 4 requires water injection for control of nitrogen oxides as per Title V air quality permit issued by the Pima County. The influent well water is treated by a reverse osmosis (RO) system prior to injection. The RO reject (concentrate containing most of the dissolved solids) is combined with the evaporative cooler blowdown prior to discharge through Outfall 001 without treatment. No chemicals are added to the water used in the evaporative coolers or treated by the RO system. The facility maintains a second RO unit on site for use when the primary system becomes clogged. The primary unit is then sent off site for descaling and cleaning. | | | | | |
| Nature of facility discharge: | RO reject water (22.5 gallons/minute) and evaporative cooler blowdown (27.5 gallons/minute). | | | | | |
| Design Discharge Flow: | Maximum Daily = 0.269 MGD Long Term Average = 0.002 MGD | | | | | |
| Average flow per discharge: | Average monthly flow data from the last 3 years of DMR indicate: 2018 (Jan – August): 0.0006 MGD - No discharge reported in January and February 2018. 2017: 0.004 MGD – No discharge reported in August 2017 2016: 0.0002 MGD – No discharge reported in June and December 2016 | | | | | |
| Continuous or intermittent discharge: | Intermittent discharge. The facility will discharge sporadically throughout each month. | | | | | |

III. RECEIVING WATER

The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.

| Receiving Water: | The discharge from the North Loop Generating Station is to the Cortaro-Marana | | | |
|------------------|--|--|--|--|
| | Irrigation District Canal. This canal is not considered a water of the US. The | | | |



| | primary source of water into the canal is from a series of ground water wells that is supplied to agricultural farmlands for irrigation. During summer monsoons or during other extreme rain events, water from the canal that is comingled with the well water, excess stormwater and the small volume from the North Loop Generating Station can overtop a weir built in the canal and flow down a side channel that terminates in the Santa Cruz River. The segment of the Santa Cruz river where the discharge occurs is listed as the Santa Cruz River from the Agua Nueva WWTP outfall to Baumgartner Road. |
|---|---|
| River Basin: | Santa Cruz River Basin |
| Outfall Location(s): | Outfall 001: Township 12S, Range 12E, Section 9 Latitude 32 23 45 "N, Longitude 111 07 23 "W |
| The outfall discharges to, Chapter 11, Article 1. | or the discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, |
| Designated uses for the receiving water listed above: | Aquatic and Wildlife effluent dependent water (A&Wedw) acute Partial Body Contact (PBC) |
| Is the receiving water on the 303(d) list? | Yes, the receiving water is listed as impaired for Ammonia (2010) and E. coli (2016). The priority ranking for TMDL development for this reach of the Santa Cruz River is Medium. The discharge from the North Loop Generating station is not a contributor of E. coli or Ammonia. |
| Given the uses stated abo | we the applicable parrative water quality standards are described in A.A.C. P19 |

Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. The discharge from the North Loop Generating Station is to the Cortaro-Marana Irrigation District Canal. This canal is not considered a water of the US. However, during extreme rain events discharges from the facility can run-off a weir built in the canal and flow down a side channel that leads into the Santa Cruz River. Based on the facilities frequency and duration of discharge only acute criteria is used to derive water quality based effluent limits.

IV. DESCRIPTION OF DISCHARGE

Because the facility is in operation and discharges have occurred, effluent monitoring data are available. The following is the measured effluent quality reported in the application.

| Parameters | Units | Maximum Daily Discharge Concentration |
|---------------------------------|-------|---------------------------------------|
| Biochemical Oxygen Demand (BOD) | mg/L | 2.0 |
| Chemical Oxygen Demand (COD) | mg/L | 8.0 |
| Ammonia Nitrogen | mg/L | 0.45 |



| Total Organic Carbon | mg/L | 0.43 |
|------------------------|------|-------|
| Oil and Grease | mg/L | 3 |
| Total Suspended Solids | mg/L | 36 |
| Temperature | С | 27.40 |

| V. STATUS OF COMPLIA | V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT | | | | | |
|---------------------------------|--|--|--|--|--|--|
| Date of most recent inspection: | 10/07/2015; no potential violations were noted as a result of this inspection. | | | | | |
| DMR files reviewed: | 02/01/2014 through 08/31/2018 | | | | | |
| Lab reports reviewed: | 06/01/2016 through 07/01/2018 | | | | | |
| DMR Exceedances: | Total Suspended Solids (January 2018); Copper (January 2018). No other exceedances were noted. | | | | | |
| NOVs issued: | March 2018 – Case ID# 174338 – For copper and TSS effluent limitation violations | | | | | |
| NOVs closed: | March 2018 – Case was closed because the resample showed there was no violation. The operator initially took the sample in the wrong location. | | | | | |
| Compliance orders: | None | | | | | |

| VI. PROPOSED PERMIT CHANGES | | | | | | |
|--|---|--|---|--|--|--|
| The following table lists the major changes from the previous permit in this draft permit. | | | | | | |
| Parameter | Existing Permit | Proposed permit | Reason for change | | | |
| Reporting Location | Mail in hard copies of DMRs and other attachments | DMRs and other reports to be submitted electronically through myDEQ portal | Language added to support the NPDES electronic DMR reporting rule that became effective on December 21, 2015. | | | |
| Cadmium, Chromium IV | Limited | Limit Removed | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard. | | | |
| Whole Effluent Toxicity (WET) Monitoring | Monitoring via assessment levels 1x/permit term | No monitoring required | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard. | | | |
| Effluent Limits | Chronic and acute criteria were applied | Acute only criteria applied | Based on the sporadic and infrequent duration of discharge only acute | | | |



| standards are used to |
|------------------------|
| derive water quality |
| based effluent limits. |

Anti-backsliding considerations – "Anti-backsliding" refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns.

Limits for the following parameter have been removed from the permit because evaluation of current data allows the conclusion that no reasonable potential (RP) for an exceedance of a standard exists:

- Cadmium
- Chromium IV
- Whole Effluent Toxicity (WET)

This is considered allowable backsliding under 303(d)(4). The effluent limitations in the current permit for these two parameters were based on state standards, the respective receiving waters are in attainment for these parameters, and the revisions are consistent with antidegradation requirements. See Section XII for information regarding antidegradation requirements.

Limits are retained in the draft permit for parameters where reasonable potential (RP) for an exceedance of a standard continues to exist or is indeterminate. In these cases, limits will be recalculated using the most current Arizona Water Quality Standards (WQS). If less stringent limits result due to a change in the WQS then backsliding is allowed in accordance with 303(d)(4) if the new limits are consistent with antidegradation requirements and the receiving water is in attainment of the new standard; see Section XII for information regarding antidegradation requirements.

VII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the draft permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

Technology-based Limitations:

The North Loop Generating Facility is a gas turbine electric power generating station and does not use steam in the generation of electricity. Therefore, the facility is not subject to standards of performance promulgated under Section 306 of the Clean Water Act and does not meet the requirements for categorical technology-based effluent limitations (TBELs) found in 40 CFR Part 423.

In the event that performance standards have not been promulgated under Section 306 of the Clean Water Act, pursuant to 40 CFR § 125.3, the permitting authority is authorized to use Best Professional Judgment (BPJ) in the establishment of technology based effluent limitations. Regulations at 40 CFR Part 423 for the steam electric power generating stations contain requirements for discharge of wastewater flows similar to those generated by the North Loop Generating Facility. Evaporative cooler blowdown is defined in 40 CFR 423.11(j) and RO reject water is a "low volume waste source" as defined in 40 CFR 423.11(b).



In the previous permit, ADEQ evaluated the Best Practicable Technology (BPT), Best Conventional Technology (BCT) and Best Available Technology (BAT) for the applicable waste streams identified in Part 423 (low volume waste sources). The regulations found at 40 CFR Part 423 require that low volume wastes generated in steam electric power generating stations achieve specified treatment standards for pH, total suspended solids (TSS), and oil and grease based on the type of treatment technology available. ADEQ included these parameters as TBELs in the previous permit based on best professional judgement (BPJ). These parameters will again be monitored with TBELs at Outfall 001 in this permit. The regulations prohibit discharge of any polychlorinated biphenyl compounds (PCBs) such as those historically used for transformer fluid.

Numeric Water Quality Standards: As outlined in A.A.C. R18-11-109 and Appendix A:

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with "reasonable potential" (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. RP refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a "highest estimated value". This value is then compared to the lowest applicable Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the "two-value steady state wasteload allocation" described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

<u>Mixing Zone:</u> The limits in this permit were determined without the use of a mixing zone. Arizona state water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies for and is approved for a mixing zone. Since a mixing zone was not applied for or granted, all water quality criteria are applied at end-of-pipe.

Assessment Levels (ALs): No assessment level monitoring required in the permit.

<u>Hardness:</u> The permittee is required to sample hardness as CaCO₃ at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 81 mg/L (the average hardness of the effluent as supplied in the application) was used to calculate the applicable water quality standards and any assessment levels or limits for the hardness dependent metals (cadmium, chromium III, copper, lead, nickel, silver and zinc).



<u>Whole Effluent Toxicity (WET):</u> WET testing is not required in the permit due to passing WET samples indicating the absence of toxicity in the effluent. In addition, the discharge is comingled with irrigation canal water that does not have aquatic and wildlife uses.

<u>Discharge Characterization (DC)</u>: In addition to monitoring for parameters assigned as limits, sampling is also required to assess the presence of pollutants in the discharge at certain minimum frequencies for additional suites of parameters that have been identified as being present in the discharge as noted in the application. This monitoring is specified in Tables 2.a. through 2.b., Discharge Characterization Testing, as follows:

- Table 2.a. General Chemistry: ammonia, BOD-5, COD, Total Organic Carbon, temperature.
- Table 2.b. Selected Metals

The purpose of DC monitoring is to characterize the discharge and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii)). DC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as A.R.S. §49-203(A)(7). If pollutants are noted at levels of concern during the permit term, this permit may also be reopened to add related limits or conditions.

Permit Limitations and Monitoring Requirements:

The table that follows summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|---|--|------------------------------------|-------------------|-------------------------------|---|--|
| Flow | | | | | | Discharge flow is to be monitored on a continual basis using a flow meter. |
| Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) | No Applicable standard | BOD: 2.0 mg/L COD: 8.0 mg/L | BOD: 1 TSS: 1 | N/A | N/A | Monitoring required for discharge characterization. |
| Total Suspended Solids (TSS) | 30 mg/L - monthly average 100 mg/L – daily max BPJ - Technology-based limit | 36 | 18 | N/A | N/A | Monitoring required and a TBEL remains in the permit. See rationale in Technology-Based Limitations section of page 5 of the fact sheet above. |
| Chlorine, Total Residual (TRC) | 19 μg/L/ A&Wedw acute | NA | 0 | N/A | N/A | Monitoring is not required. |
| рН | Minimum: 6.5 Maximum: 9.0 A&Wedw and PBC A.A.C. R18-11-109(B) Minimum: 6.0 Maximum: 9.0 BPJ - Technology-based limits | 8.86 – Max 7.83 - Min | 18 | N/A | WQBEL or TBEL both apply based on BPJ | pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected. pH sampling must also coincide with ammonia sampling when required. |
| Temperature | No applicable numeric standard | 27.4ºC | 1 | N/A | N/A | Discharge temperature is to be monitored for effluent characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Temperature sampling must also coincide with ammonia sampling when required. |
| Total Organic Carbon (TOC) | No applicable standard | 0.425 mg/L | 1 | N/A | NA | Monitoring required for discharge characterization. Application requirement for industrial facilities. |
| Ammonia | Standard varies with temperature and pH | 0.425 mg/L | 1 | N/A | No RP | Monitoring required for discharge characterization. |
| Oil & Grease | BPJ Technology-Based Level of 15 mg/L monthly average and 20 mg/L daily maximum | 3.1 mg/L | 16 | N/A | BPJ TBEL | Monitoring required and a TBEL remains in the permit. See rationale in Technology-Based Limitations section of page 5 of the fact sheet above. |
| Arsenic | 340 μg/L/ A&Wedw acute | 3.2 μg/L | 3 | 17.9 μg/L | No RP | Monitoring required for discharge characterization. |
| Beryllium | 1867 μg/L/ PBC | 0.3 μg/L | 3 | 1.68 μg/L | No RP | Monitoring required for discharge characterization. |



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|----------------------------------|--|------------------------------------|-------------------|-------------------------------|--|---|
| Cadmium (2) | 3.4 µg/L/ A&Wedw acute | 0.5 μg/L | 12 | 1.7 μg/L | No RP | Monitoring required for discharge characterization. |
| Chromium (Total) | No applicable standard | 2.9 μg/L | 10 | 8.8 μg/L | No RP | Monitoring required as an indicator parameter for Chromium VI. |
| Chromium VI | 16 μg/L/ A&Wedw acute | NA | 0 | NA | No RP (Based on total chromium data) | Monitoring required for discharge characterization if total chromium values exceed 11 μg/L. |
| Copper (2) | 11 μg/L/ A&Wedw acute | 120 μg/L | 9 | 420 μg/L | RP exists | Monitoring required and a WQBEL remains in the permit. |
| Hardness | No applicable standard. Hardness is used to determine standards for specific metal parameters. | 110 mg/L | 17 | N/A | N/A | A&W standards for cadmium, chromium III, copper, lead, nickel, silver and zinc used for RP determinations were based on the average discharge hardness value of 81 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required. |
| Iron | No applicable standard | 1700 μg/L | 8 | N/A | N/A | No monitoring is required. |
| Lead (2) | 15 μg/L / PBC | 0.4 μg/L | 3 | 2.0 μg/L | No RP | Monitoring required for discharge characterization. The previous permit data analyzed 15 lead samples that were all below detection limit of 0.5 µg/L; thus justifying no RP. |
| Mercury | 2.4 μg/L/ A&Wedw acute | <0.06 μg/L | 8 | NA | RP Indeterminate (High LOQ) | Monitoring required for discharge characterization. |
| Nickel (2) | 392 μg/L/ A&Wedw acute | 1.4 μg/L | 3 | 7.84 μg/L | No RP | Monitoring required for discharge characterization. |
| Selenium | 2 μg/L/ A&Wedw acute | <8.6 μg/L | 8 | NA | No RP | Monitoring required for discharge characterization. Previous permit term data with 16 samples all < 2 μg/L was also considered in making no RP determination. |
| Silver (2) | 2.0 μg/L/ A&Wedw acute | 0.1 μg/L | 3 | 0.56 μg/L | No RP | Monitoring required for discharge characterization. |
| Zinc (2) | 98 μg/L/ A&Wedw acute | 15 μg/L | 3 | 84.0 μg/L | No RP | Monitoring required for discharge characterization. |
| Whole Effluent Toxicity (WET) | No toxicity (A.A.C. R18-11-108(A)(6) R18-11-108(A)(6) kirchneriella subcapitata (3) | 1.0 TUc | 2 | N/A | No RP | No monitoring required |
| | Pimephales promelas | 1.0TUc | 2 | N/A | No RP | No monitoring required |



| Parameter | Lowest Standard / Designated Use | | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|-----------|----------------------------------|-----------------------|------------------------------------|-------------------|-------------------------------|------------------|--|
| | | Ceriodaphnia dubia | 1.0 TUc | 2 | N/A | No RP | No monitoring required |

Footnotes:

- (1) The monitoring frequencies are as specified in the permit.
- (2) Hardness-dependent metal the standard for this parameter is based on the average hardness value of the discharge as indicated above.
- (3) Formerly known as Selenastrum capricornutum or Raphidocelis subcapitata.



VIII. NARRATIVE WATER QUALITY STANDARDS

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Sections E and F of the draft permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with discharge limitations. Additionally, monitoring may be required to gather data for future discharge limitations or to monitor discharge impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance.

Discrete (i.e., grab) samples are specified in the permit for all parameters. The quality of the discharge is not expected to be highly variable. This is because the source water (ground water) is the same and no chemicals are used in the operation.

Monitoring locations are specified in the permit Part 1.I in order to ensure that representative samples of the discharge are consistently obtained.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.2) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Sections B.1 and 2 of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), and AZPDES Flow Record forms. The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

<u>Electronic reporting.</u> The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule requires permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

Requirements for retention of monitoring records are detailed in Part II.D of the permit.



X. BIOSOLIDS REQUIREMENTS (Part III in Permit)

Not applicable – this is an industrial facility.

XI. SPECIAL CONDITIONS (Part V in Permit)

Permit Reopener

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated discharge toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

XII. ANTIDEGRADATION

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the North Loop Generating Station will be to an effluent-dependent water. Except for flows resulting from rain events, the only water in the stream will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

XIII. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XIV. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director



determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XV. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Andy Koester
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Andy Koester at (602) 771 – 4689 or by e-mail at ak5@azdeq.gov.

XVI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

- 1. AZPDES Permit Application Form(s) 1, 2C and 2C addendum received on August 7, 2018 along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
- 2. ADEQ files on North Loop Generating Station.
- 3. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, Water Quality Standards for Surface Waters, adopted December 31, 2016.
- 4. A.A.C. Title 18, Chapter 9, Article 9. Arizona Pollutant Discharge Elimination System rules.
- 5. Code of Federal Regulations (CFR) Title 40:
 - Part 423 Effluent Limitation Guidelines for steam power electric plants.
- 6. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
- 7. Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs, US EPA, May 31, 1996.
- 8. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA /821-R-02-013).
- 9.U.S. EPA NPDES Permit Writers' Manual, September 2010.